

**CLAIMS**

1. A dynamic network node metrics reporting method, comprising:
  - probing a content delivery network (CDN) component for determined and undetermined ones of selected metric values characterizing the performance of said CDN component;
  - reporting said determined metric values to a recipient graphical display interface; and
  - repeating said probing and said reporting steps for said undetermined metric values.
2. The method according to claim 1, wherein said probing and said reporting step occurs in a first agent.
3. The method according to claim 2, wherein said repeating step occurs in a second agent.
4. The method according the claim 3, wherein said reporting step comprises:
  - updating a first update message with said determined metric values resulting from said probing step initiated by said first agent; and
  - adding to said first update message, a predefined code, said predefined code relating to said undetermined values.

1 5. The method according to claim 4, wherein said repeating step comprises:

2 updating a second update message with determined metric values  
3 resulting from said probing initiated by a second agent, said determined  
4 metrics corresponding to said undetermined metrics resulting from said probing  
5 initiated by said first agent; and

6 adding a predefined code to said second update message, said  
7 predefined code relating to said determined metric values in said first update  
8 message.

1 6. The method according to claim 5, wherein values within said fields of said first  
2 and said second update message are used to update values within said recipient  
3 graphical display, where said graphical display is updated using said determined  
4 metric values.

1 7. The method according to claim 5, wherein said selected predefined code defines  
2 an action selected from the group consisting of disregarding a result from said  
3 probing step, indicating a problem with said probing step, and keeping an  
4 existing value of said metric without setting it.

1 8. The method according to claim 1, wherein said metrics is at least one selected  
2 from the group consisting of a CPU load, network capacity, run queue size,  
3 connections, memory usage, page ins, and disk I/O.

1 9. A method for dynamically reporting a plurality of metrics for components of a  
2 dynamic data space, comprising:

3 probing a component of the dynamic data space for determined and  
4 undetermined ones of selected metric values characterizing the data space;

5 reporting said determined metric values to a recipient graphical display  
6 interface; and

7 repeating said probing and reporting steps for said undetermined metric  
8 values.

1 10. The method according to claim 9, wherein said probing and said reporting step  
2 occurs in a first agent.

1 11. The method according to claim 10, wherein said repeating step occurs in a  
2 second agent.

1 12. The method according to claim 11, wherein said reporting step comprises:  
2 updating a first update message with said determined metric values  
3 resulting from said probing step initiated by said first agent; and

4 adding to said first update message a predefined code, said predefined  
5 code relating to said undetermined values.

1 13. The method according to claim 12, wherein said repeating step comprises:

2 updating a second update message with determined metric values  
3 resulting from said probing initiated by a second agent, said determined metrics  
4 corresponding to said undetermined metrics resulting from said probing initiated  
5 by said first agent; and

6 adding a predefined code to said second update message, said  
7 predefined code relating to said undetermined metric values in said first update  
8 message.

1 14. The method according to claim 13, wherein values within said fields of said first  
2 and said second update message are used to update values within said recipient  
3 graphical display, wherein said graphical display is updated using said  
4 determined metric values.

1 15. The method according to claim 13, wherein said selected predefined code  
2 defines an action selected from the group consisting of disregarding a result from  
3 said probing step, indicating a problem with said probing step, and keeping an  
4 existing value of said metric without setting it.

1 16. A machine readable storage having stored thereon, a computer program having  
2 a plurality of code sections, said code sections executable by a machine for  
3 causing the machine to perform the steps of:

4 probing a CDN component for determined and undetermined ones of  
5 selected metric values characterizing the performance of said CDN component,  
6 the code sections for reporting metrics for said CDN components;

7 reporting said determined metric values to a recipient graphical display  
8 interface; and

9 repeating said probing and said reporting steps for said undetermined  
10 metric values.

1 17. The machine readable storage according to claim 16, wherein said probing and  
2 said reporting step occurs in a first agent.

1 18. The machine readable storage according to claim 17, wherein said repeating  
2 step occurs in a second agent.

1 19. The machine readable storage according the claim 18, wherein said reporting  
2 step comprises:

3 updating a first update message with said determined metric values  
4 resulting from said probing step initiated by said first agent; and

5 adding to said first update message, a predefined code, said predefined  
6 code relating to said undetermined values.

1 20. The machine readable storage according to claim 19, wherein said repeating  
2 step comprises:

3 updating a second update message with determined metric values  
4 resulting from said probing initiated by a second agent, said determined  
5 metrics corresponding to said undetermined metrics resulting from said probing  
6 initiated by said first agent; and

7 adding a predefined code to said second update message, said  
8 predefined code relating to said determined metric values in said first update  
9 message.

1 21. The machine readable storage according to claim 20, wherein values within said  
2 fields of said first and said second update message are used to update values  
3 within said recipient graphical display, where said graphical display is updated  
4 using said determined metric values.

1 22. The machine readable storage according to claim 20, wherein said selected  
2 predefined code defines an action selected from the group consisting of  
3 disregarding a result from said probing step, indicating a problem with said  
4 probing step, and keeping an existing value of said metric without setting it.

1 23. The machine readable storage according to claim 16, wherein said metrics is at  
2 least one selected from the group consisting of a CPU load, network capacity,  
3 run queue size, connection, memory usage, page ins capacity, and a disk I/O.

1 24. A machine readable storage having stored thereon, a computer program having  
2 a plurality of code sections, the code sections executable by a machine for  
3 causing the machine to perform the steps of:

4 probing a component of the dynamic data space for determined and  
5 undetermined ones of selected metric values characterizing said component, the  
6 code sections for reporting a plurality of metrics for components of a dynamic  
7 data space;

8 reporting said determined metric values to a recipient graphical display  
9 interface; and

10 repeating said probing and reporting steps for said undetermined metric  
11 values.

1 25. The machine readable storage according to claim 24, wherein said probing and  
2 said reporting step occurs in a first agent.

1 26. The machine readable storage according to claim 25, wherein said repeating  
2 step occurs in a second agent.

1 27. The machine readable storage according to claim 26, wherein said reporting step  
2 comprises:

3 updating a first update message with said determined metric values  
4 resulting from said probing step initiated by said first agent; and

5 adding to said first update message a predefined code, said predefined  
6 code relating to said undetermined values.

1 28. The machine readable storage according to claim 27, wherein said repeating  
2 step comprises:

3 updating a second update message with determined metric values  
4 resulting from said probing initiated by a second agent, said determined metrics  
5 corresponding to said undetermined metrics resulting from said probing initiated  
6 by said first agent; and

7 adding a predefined code to said second update message, said  
8 predefined code relating to said determined metric values in said first update  
9 message.

1 29. The machine readable storage according to claim 28, wherein values within said  
2 fields of said first and said second update message are used to update values  
3 within said recipient graphical display, wherein said graphical display is updated  
4 using said determined metric values.



1 30. The machine readable storage according to claim 28, wherein said selected  
2 predefined code defines an action selected from the group consisting of  
3 disregarding a result from said probing step, indicating a problem with said  
4 probing step, and keeping an existing value of said metric without setting it.

1 31. The machine readable storage according to claim 28, wherein said component is  
2 a CDN component.

1 32. A dynamic CDN node metrics reporting system, comprising:  
2 a graphical display map for displaying a plurality of nodes and visual  
3 representations of reported metric values for characterizing components, said  
4 nodes representing said components; and  
5 a plurality of agents configured to probe said components for  
6 determined and undetermined ones of selected metric values, said agents  
7 reporting said determined metric values and codes representing said  
8 undetermined metric values to said graphical display map.

1 33. The system according to claim 32, wherein performance metric values are used  
2 to characterize said components.